

Data Sheet



BG7

Reflection factor	
P_d	0.918

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (365nm)	\geq	0.25
τ_i (488nm)	\geq	0.78
τ_i (633nm)	\leq	0.08

Refractive Index n	
n_H (404.7 nm) =	1.540
n_D (587.6 nm) =	1.520

Density	
ρ [g/cm ³]	2.61

Bubble content	
Bubble class	1

Chemical Resistance	
FR class	0
SR class	1.0
AR class	1.0

Transformation temperature	
T _g [°C]	468

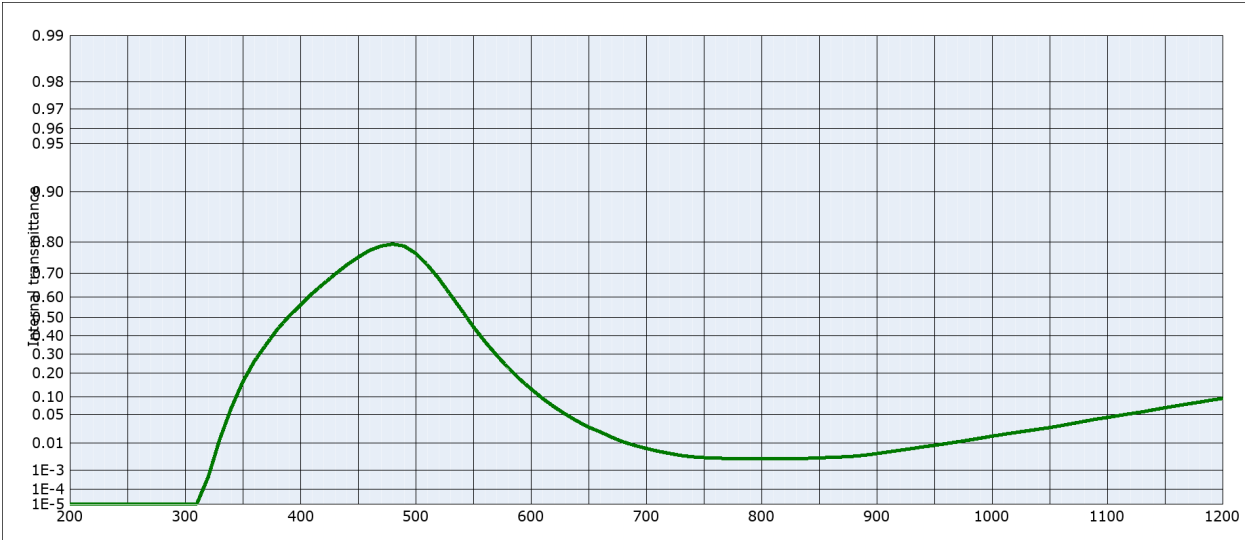
Thermal expansion	
$\alpha_{30/+70^\circ C}$ [10 ⁻⁶ /K]	8.5
$\alpha_{20/300^\circ C}$ [10 ⁻⁶ /K]	9.9
$\alpha_{20/200^\circ C}$ [10 ⁻⁶ /K]	

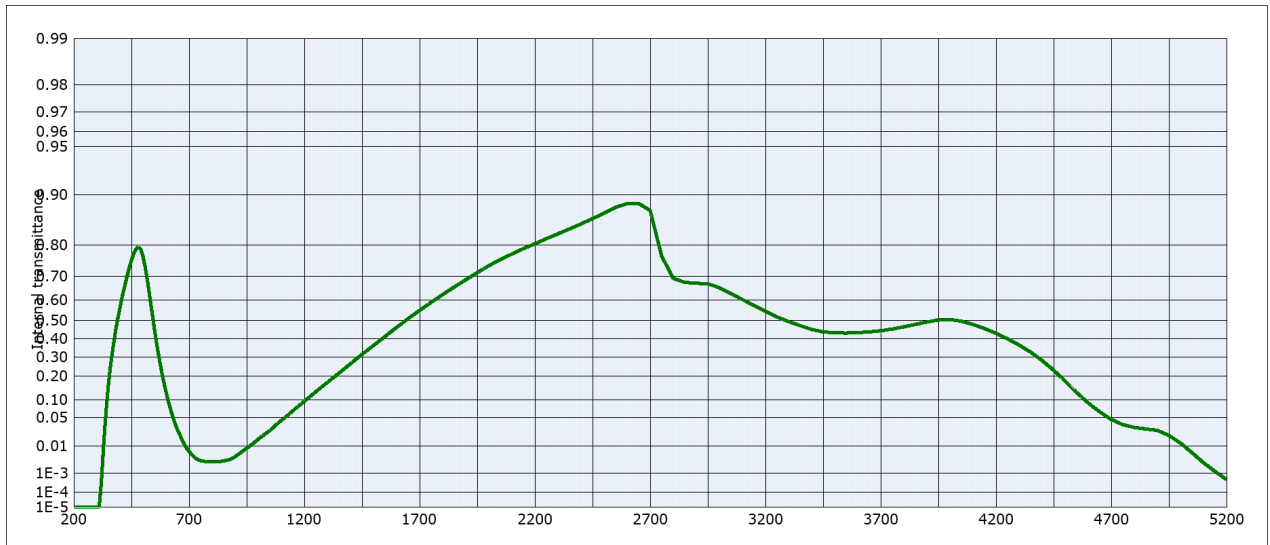
Temperature coefficient	
T _K [nm/°C]	

Notes	
Ionicly colored glass	
Bandpass filter	

All data without tolerances are to be understood to be reference values.
Guaranteed values are only those values listed in the section "Spectral values guaranteed".

Colorimetric evaluation														
Illuminant		A (Planck T = 2856 K)			Illuminant		Planck T = 3200 K			Illuminant		D65 (T _C = 6504 K)		
d [mm]		1	2	3	d [mm]		1	2	3	d [mm]		1	2	3
x		0.262	0.179	0.145	x		0.246	0.172	0.143	x		0.191	0.152	0.138
y		0.406	0.360	0.317	y		0.382	0.333	0.292	y		0.272	0.229	0.200
Y		30	14	8	Y		31	16	9	Y		38	21	13
λ_d [nm]		495	492	490	λ_d [nm]		493	490	488	λ_d [nm]		486	484	482
P _e		0.44	0.65	0.76	P _e		0.45	0.66	0.76	P _e		0.49	0.68	0.76





Internal transmittance τ_i at reference thickness $d = 1$ mm
The internal transmittance values, tabulated and graphically represented, are reference values only

λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i
200	$< 10^{-5}$	500	0.767	800	$3.0 \cdot 10^{-3}$	1100	$4.4 \cdot 10^{-2}$	2200	0.803	3700	0.444
210	$< 10^{-5}$	510	0.730	810	$3.0 \cdot 10^{-3}$	1110	$4.8 \cdot 10^{-2}$	2250	0.816	3750	0.453
220	$< 10^{-5}$	520	0.679	820	$3.0 \cdot 10^{-3}$	1120	$5.2 \cdot 10^{-2}$	2300	0.827	3800	0.465
230	$< 10^{-5}$	530	0.611	830	$3.0 \cdot 10^{-3}$	1130	$5.6 \cdot 10^{-2}$	2350	0.839	3850	0.478
240	$< 10^{-5}$	540	0.535	840	$3.1 \cdot 10^{-3}$	1140	$6.2 \cdot 10^{-2}$	2400	0.849	3900	0.490
250	$< 10^{-5}$	550	0.450	850	$3.2 \cdot 10^{-3}$	1150	$6.7 \cdot 10^{-2}$	2450	0.860	3950	0.501
260	$< 10^{-5}$	560	0.369	860	$3.4 \cdot 10^{-3}$	1160	$7.3 \cdot 10^{-2}$	2500	0.870	4000	0.503
270	$< 10^{-5}$	570	0.295	870	$3.5 \cdot 10^{-3}$	1170	$7.8 \cdot 10^{-2}$	2550	0.881	4050	0.495
280	$< 10^{-5}$	580	0.229	880	$3.7 \cdot 10^{-3}$	1180	$8.4 \cdot 10^{-2}$	2600	0.887	4100	0.478
290	$< 10^{-5}$	590	0.174	890	$4.1 \cdot 10^{-3}$	1190	$9.0 \cdot 10^{-2}$	2650	0.887	4150	0.456
300	$< 10^{-5}$	600	0.131	900	$4.6 \cdot 10^{-3}$	1200	$9.6 \cdot 10^{-2}$	2700	0.875	4200	0.430
310	$< 10^{-5}$	610	$9.6 \cdot 10^{-2}$	910	$5.3 \cdot 10^{-3}$	1250	0.132	2750	0.767	4250	0.400
320	$4.7 \cdot 10^{-4}$	620	$7.0 \cdot 10^{-2}$	920	$6.0 \cdot 10^{-3}$	1300	0.171	2800	0.691	4300	0.366
330	$1.3 \cdot 10^{-2}$	630	$5.1 \cdot 10^{-2}$	930	$6.8 \cdot 10^{-3}$	1350	0.215	2850	0.675	4350	0.326
340	$6.6 \cdot 10^{-2}$	640	$3.7 \cdot 10^{-2}$	940	$7.7 \cdot 10^{-3}$	1400	0.263	2900	0.672	4400	0.281
350	0.160	650	$2.7 \cdot 10^{-2}$	950	$8.7 \cdot 10^{-3}$	1450	0.314	2950	0.670	4450	0.230
360	0.260	660	$2.1 \cdot 10^{-2}$	960	$9.8 \cdot 10^{-3}$	1500	0.363	3000	0.654	4500	0.177
370	0.349	670	$1.5 \cdot 10^{-2}$	970	$1.1 \cdot 10^{-2}$	1550	0.413	3050	0.628	4550	0.128
380	0.435	680	$1.1 \cdot 10^{-2}$	980	$1.2 \cdot 10^{-2}$	1600	0.462	3100	0.602	4600	$9.0 \cdot 10^{-2}$
390	0.504	690	$8.6 \cdot 10^{-3}$	990	$1.4 \cdot 10^{-2}$	1650	0.508	3150	0.574	4650	$6.4 \cdot 10^{-2}$
400	0.561	700	$6.9 \cdot 10^{-3}$	1000	$1.6 \cdot 10^{-2}$	1700	0.550	3200	0.546	4700	$4.6 \cdot 10^{-2}$
410	0.614	710	$5.6 \cdot 10^{-3}$	1010	$1.8 \cdot 10^{-2}$	1750	0.589	3250	0.517	4750	$3.6 \cdot 10^{-2}$
420	0.657	720	$4.7 \cdot 10^{-3}$	1020	$2.0 \cdot 10^{-2}$	1800	0.624	3300	0.493	4800	$3.1 \cdot 10^{-2}$
430	0.695	730	$4.0 \cdot 10^{-3}$	1030	$2.2 \cdot 10^{-2}$	1850	0.656	3350	0.472	4850	$2.9 \cdot 10^{-2}$
440	0.728	740	$3.6 \cdot 10^{-3}$	1040	$2.4 \cdot 10^{-2}$	1900	0.685	3400	0.451	4900	$2.7 \cdot 10^{-2}$
450	0.754	750	$3.3 \cdot 10^{-3}$	1050	$2.6 \cdot 10^{-2}$	1950	0.712	3450	0.438	4950	$2.0 \cdot 10^{-2}$
460	0.776	760	$3.2 \cdot 10^{-3}$	1060	$2.9 \cdot 10^{-2}$	2000	0.737	3500	0.433	5000	$1.3 \cdot 10^{-2}$
470	0.788	770	$3.1 \cdot 10^{-3}$	1070	$3.3 \cdot 10^{-2}$	2050	0.757	3550	0.432	5050	$6.3 \cdot 10^{-3}$
480	0.794	780	$3.0 \cdot 10^{-3}$	1080	$3.6 \cdot 10^{-2}$	2100	0.774	3600	0.434	5100	$2.8 \cdot 10^{-3}$
490	0.788	790	$3.0 \cdot 10^{-3}$	1090	$4.1 \cdot 10^{-2}$	2150	0.789	3650	0.438	5150	$1.2 \cdot 10^{-3}$